

REMARKS**Status of case**

Claims 1-3 and 5-32 are currently pending.

Rejection under 35 U.S.C. § 102(b)

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,307,415 to Fosgate ("the Fosgate reference"). Claim 1 recites "an input mixer that produces a plurality of input signal pairs using the plurality of audio input signals, each of the plurality of the input signal pairs being non-inverses of one another and directed to different locations in the environment" and "a matrix decoder coupled to the input mixer, the matrix decoder comprising different sections directed to the different locations, each of the sections receiving input from one of the input signal pairs and outputting output signals for the location correlated to the input signal pair received." See also claim 2 ("creating a plurality of input signal pairs as a function of the plurality of input signals, the input signal pairs being non-inverses of one another and for different locations in the environment" and "creating a plurality of output signals as a function of the plurality of input signal pairs using a matrix decoder, the matrix decoder comprising different sections directed to the different locations, each of the sections receiving input from one of the input signal pairs and outputting output signals for the location correlated to the input signal pair received.") This is in contrast to the cited references, including the Fosgate reference. The Fosgate reference includes Figures 2 and 15, reproduced below:

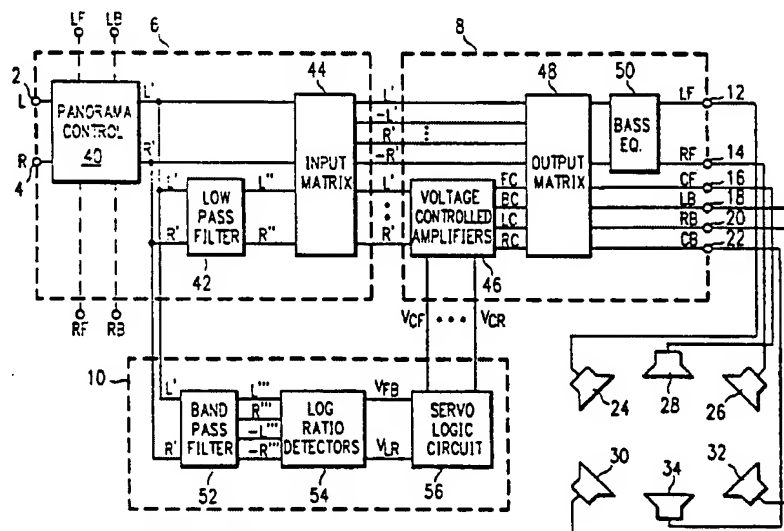


FIG. 2

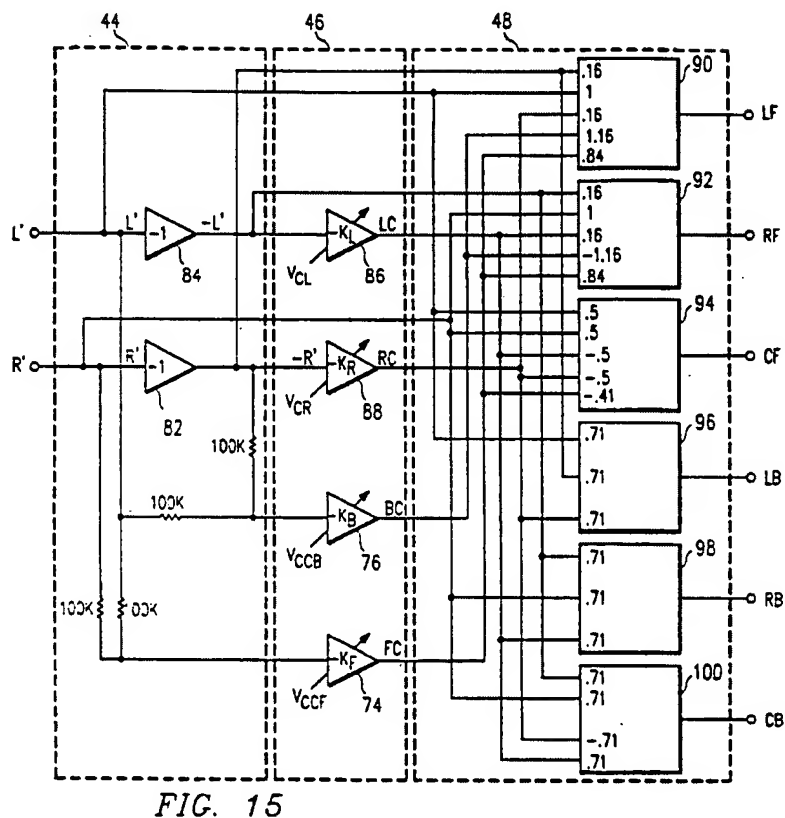
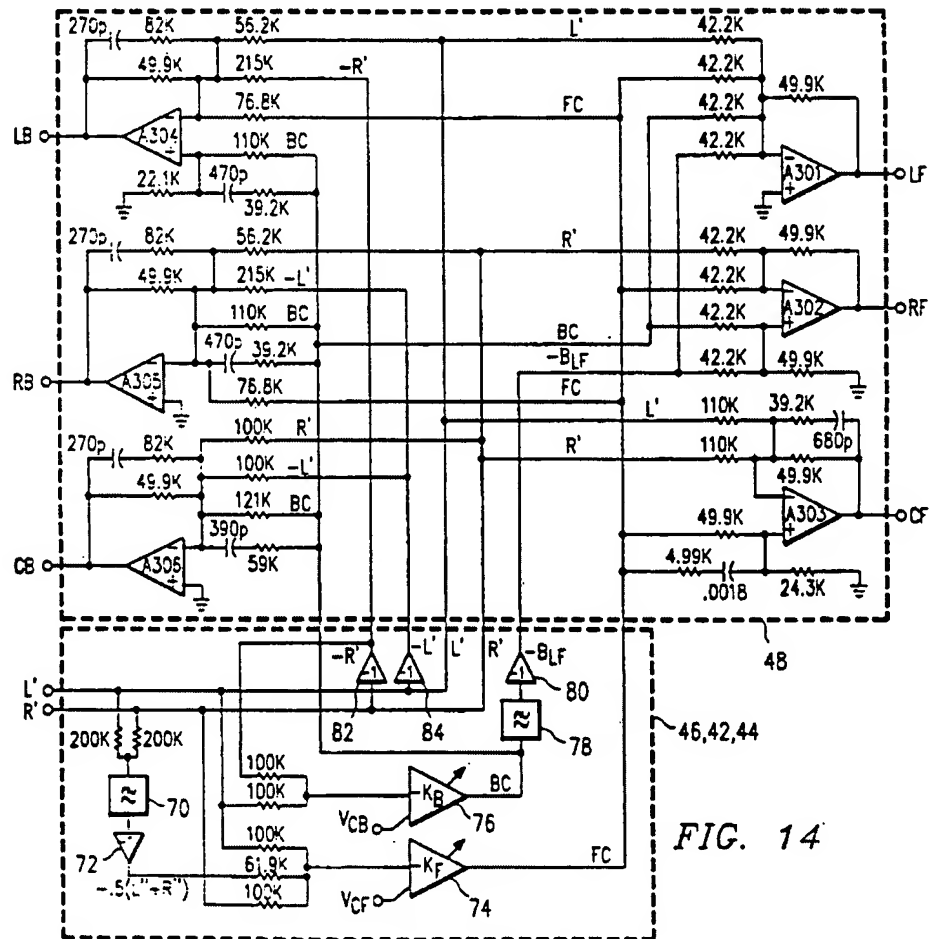


Figure 15 includes expanded diagrams of the input matrix 44, voltage controlled amplifiers 46, and output matrix 48 depicted in Figure 2. As shown in the above figures and the associated text, the input matrix 44 generates various signals, such as L' (which is the same as signal L' input to input matrix 44), $-L'$ (the inverse of L'), R' , $-R'$, etc. These various signals are input generally to the output matrix 48. The Fosgate reference teaches that, in addition to the various signals, output matrix 48 receives input from output signals FC, BC, LC, and RC. Output signals FC, BC, LC, and RC are used by the output matrix 48 for signal dependent cancellation of front, back, left and right components, respectively.

The claims as currently presented distinguish over the Fosgate reference in several ways. First, the claims recite producing a plurality of input signal pairs that are non-inverses and that are directed to different locations in the environment. The Fosgate reference clearly teaches that the input matrix 44 generates signals such as L' , $-L'$, R' , $-R'$, etc. Further, the claims recite that the matrix includes sections directed to different locations and that each of the sections receives input from one of the input signal pairs. The Fosgate reference only teaches a decoder 48 that fails to include "each of the sections receiving input from one of the input signal pairs and

outputting output signals for the location correlated to the input signal pair received". One example of decoder 48 is reproduced below:



As shown in the above figure, each of the sections does not receive input from one of the input signal pairs or output output signals for the location correlated to the input signal pair received.

The following is a figure from the present application showing one example:

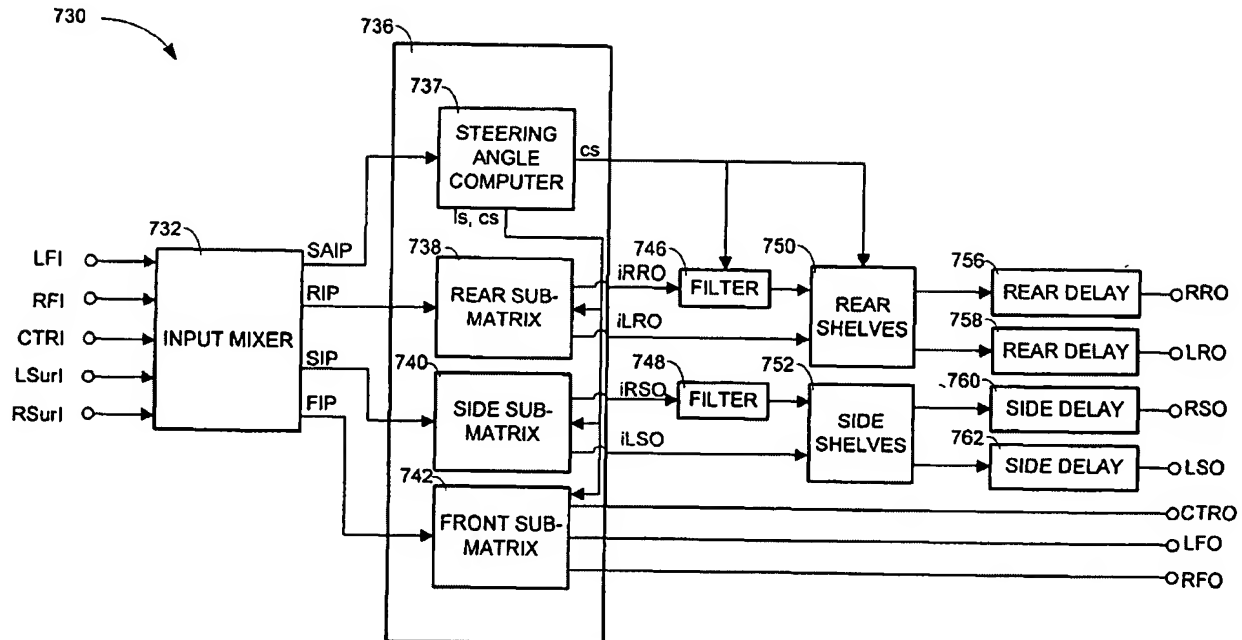


FIG. 7

As shown in the above figure, there are several inputs (such as Left Front (LFI), Right Front (RFI), Center (CTRI), Left Surround (LSurl), and Right Surround (RsurI). The input mixer 732 generates several input signal pairs, including a steering angle input pair (SAIP), rear input pair (RIP), side input pair (SIP) and front input pair (FIP). Thus, the decoder as presented in the claims is different from that taught in the Fosgate reference. In addition to failing to teach the matrix as described in claims 1 and 2, the Fosgate reference also fails to teach the specific input pairs, such as recited in claims 6-7, 11-12, 17-18, and 22-23.

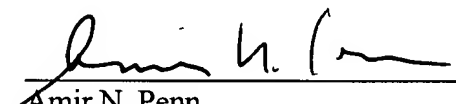
Further, the invention as claimed includes input signals (such as left front input, right front input, and center input) that are directed to the same location as the output signals (such as left front output, right front output, and center output). One skilled in the art would simply pass the input signals (such as left front, right front, and center) to the output channels as being the most straightforward way to generate the signals for these channels. However, one aspect of the invention improves on these signals (such as left front, right front, and center) by using the signal pairs as inputs to the decoder. This is in contrast to the Fosgate reference which does not have any common signals between the input and the output. Specifically, the Fosgate reference teaches as inputs, a general left input (L) and a general right input (R), and as outputs, a left front output (LF), a right front output (RF), a center front output (CF), a left back output (LB), a right

back output (RB), and a center back output (CB). There are no common signals between the inputs and the outputs. For example, the general left input (L) is not the same as the left front output (LF) or left rear output (LR). Therefore, contrary to the present application as claimed in claims 13-15 and 26-28, the Fosgate reference must generate these signals (such as a left front output (LF), a right front output (RF), a left back output (LB), and a right back output (RB)) for the output channels. Thus, at least for the reasons mentioned above, the claims are patentable over the cited references.

SUMMARY

Applicant respectfully requests the Examiner to grant early allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,


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